

What is Claimed:

1. A dual flow convection oven comprising:

an insulated housing, a heat conducting liner disposed within said housing and spaced away from the walls thereof defining the cooking cavity of said oven, said liner  
5 having rear and side walls and a top and a bottom wall, said rear wall having a port there through;

gas burner means disposed between said housing and said liner for expelling hot products of combustion into the space between said liner and housing;

a squirrel cage fan mounted within said liner across the port in said back wall,  
10 said fan mounting an internal concave plate on one side adjacent the port in said back wall;

baffle and guard assembly including a plate having a circular opening disposed in front of said fan and said opening being coaxially with said fan and a pair of diverter plates extending from said plate toward said liner back wall covering only a portion of  
15 the circumference of said fan whereby heated air passing through the port and through the opening will be mixed and expelled by said fan into the cooking cavity.

2. The oven of claim 1 wherein said diverter plates are disposed at about two and eight o'clock around opening in said plate.

3. The oven of claim 1 wherein a pathway around the space between the rear  
20 side top and bottom walls of said liner is defined between said liner and housing whereby when products of combustion circulate through said pathway heating said liner walls to generate radiant heat in said cavity.

4. The oven of claim 3 wherein the pathway adjacent the port in said back wall is unobstructed.

5. The oven of claim 1 wherein the opening in said plate has a mesh guard thereacross.

5 6. The oven of claim 3 wherein plates are no more than about three inches across.

7. The oven of claim 1 wherein said burner means includes at least one in-shot burner.

8. The oven of claim 7 further comprising:  
10 burner control means for selectively changing the maximum heat energy of said combustion from a first to a second value.

9. The oven of claim 8 wherein said first value is 60,000 BTUs and said second value is 80,000 BTUs.

10. The oven of claim 7 wherein four burners are provided.